

| | |
|---|--|
| Unit: Promotional Graphics Peer Review and Innovation | Concept: Minimalizing Waste |
| Standard <ul style="list-style-type: none"> 3.5.9-12.B Critically assess and evaluate a technology that minimizes resource use and resulting waste to achieve a goal. | |
| Key Learning <ul style="list-style-type: none"> (LTTG) Students will be able to acquire, analyze, and evaluate information to reach an informed conclusion, using logic and reasoning skills. | Unit Essential Question <ul style="list-style-type: none"> How can I acquire, analyze, and evaluate information to reach an informed conclusion, using logic and reasoning skills? |
| Essential Question <ul style="list-style-type: none"> Why is it important to sustainably manage technological resources? | |
| Key Vocabulary <ul style="list-style-type: none"> Assess, Critical Thinking, Evaluate, Resource, Waste, Goal, Solution, and Impact | |
| Learning Experience <ul style="list-style-type: none"> Students who demonstrate understanding can critically assess and evaluate a technology that minimizes resource use and resulting waste to achieve a goal. Clarifying Statement: By focusing on a “wicked problem”—one that is complex, has multiple possible solutions, and requires consideration of various perspectives—students can be challenged to go through a process of problem finding/defining, investigation, and design to find technological solutions that are more beneficial for society and the environment. VUCA problems—ones that are volatile, uncertain, complex, and ambiguous—challenge students to actively engage in the engineering design process to find technological solutions that are beneficial to society and minimize negative environmental impact and nonconsumable by-products. | |
| (Big Idea) Technology & Engineering Curriculum Framework Big Ideas <ul style="list-style-type: none"> Responsible creation and use of technology requires the sustainable use of renewable and non-renewable resources and handling of waste. | |
| (SEP) Science and Engineering Practices <ul style="list-style-type: none"> Using Mathematics and Computational Thinking - Use mathematical models and/or computer simulations to predict the effects of a design solution on systems and/or the interactions between systems. | |
| (DCI) Disciplinary Core Ideas <ul style="list-style-type: none"> HS-ESS3-4 - Evaluate or refine a technological solution that reduces impacts of human activities on natural systems. | |
| (TEP) Technology and Engineering Practices | |

- Critical Thinking - Uses evidence to better understand and solve problems in technology and engineering, including applying computational thinking.

Terms

- (ETS) Engineering, Technology, and Applications of Science – Standards applicable across the Science, Environmental Literacy & Sustainability, and Technology & Engineering content areas.
- (LTTG) PDE Technology & Engineering Long Term Transfer Goals
- (Learning Experience) A learning experience refers to any interaction, activity, or other experience in which students acquire new understanding, knowledge, behaviors, or skills.
- (Big Idea #) PDE Technology & Engineering Curriculum Framework Big Ideas
- (SEP) PDE Science and Engineering Practices
- (DCI) PDE Disciplinary Core Ideas
- (TEP) PDE Technology and Engineering Practices